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10/567,188

08/09/2006

Michael A. Ramsay

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06/30/2010

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EXAMINER

D'AGOSTINO, PAUL ANTHONY

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

06/30/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|---------------------------------------|---|--|
| Office Action Summary | Application No. 10/567,188 | Applicant(s) RAMSAY, MICHAEL A. | |
| | Examiner Paul A. D'Agostino | Art Unit 3714 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>2/3/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This responds to Applicant's Arguments/Remarks filed 08/09/2006. Claims 1-8 are now pending in this Application.

Claim Objections

1. Claims 1 and 6 are objected to because of the following informalities:
 - a. Claim 1, Line 9, change "on oscillator" to – an oscillator".
 - b. Claim 6, Line 4, change "bead" to – beam --.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S.

Art Unit: 3714

Patent No. 6,482,108 to McLaughlin (McLaughlin) in view of U.S. Patent Pub. No. 2006/0128503 to Savarese et al. (Savarese).

McLaughlin discloses an apparatus and method (Fig. 3 30) for detecting an object (Fig. 2 “golf ball”, the apparatus comprising a light source (Fig. 3 31) adapted to emit a beam of light at wavelengths absorbed by the object or a coating thereon (Fig. 2) and Col. 3 Lines 12-33);

a detector (Fig. 3 “photoelectric detector” 33) adapted to detect light at wavelengths (“pre-selected wavelengths” Col. 3 Lines 39-40) fluoresced by the object or coating thereon; and

an oscillator to modulate the light source (Fig. 2 “amplifier” 34).

However, McLaughlin is silent wherein a processor is adapted to determine the presence of an object from the light detected by the detector; and wherein the processor includes a mixer, which receives the modulation signal from the oscillator, and a signal from the detector.

Savarese teaches of a golf ball detection system wherein a processor (Fig. 4A) is adapted to determine the presence of an object from signals detected by the detector (Fig. 4A receiver); and wherein the processor includes a mixer (Fig. 3B oscillator 856 feeds both the transmitter and the receiver; the signal from the receiver is mixed by mixer 872 which receives the modulation signal from the oscillator, and a signal from the detector and is assisted by a driver circuit 868 frequency multiplier). Savarese provides this system and method in order to locate lost golf balls making the game more cost effective to play and maintain the proper tempo of game play [0003].

It is recognized that Savarese concerns ball location using RF however the features relied upon are those features to enhance signal processing in general. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the features as taught by Savarese into the teachings of McLaughlin to improve the detection capability and accuracy of the ball locator to locate lost golf balls more reliably making the game more cost effective to play and maintain the proper tempo of game play [0003].

In Reference to Claim 3-4 and 7-8

McLaughlin as modified by Savarese discloses a system substantially equivalent to Applicant's claimed invention. Savarese further includes establishing a threshold such that subsequently received signals having a signal strength less than the initialization signal strength will not produce an indication of a golf ball detection [0008]. Savarese accomplishes this by the setting of a threshold ([0076 and Figs. 4B, 4C, 5, and 6) and the use of band pass filters (Fig. 3B filter 874) so that the device can be adjusted for interference and for adjustments over time [0008].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the threshold and filters as taught by Savarese into the teachings of McLaughlin in order to minimize false indications of a golf ball detection by filtering out unwanted frequencies.

In Reference to Claim 5

Savarese teaches that the location device modulation operates within the range of 10Hz to 100MHz ([0081]). For motivation to combine see rejection of Claim 6.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is provided in the Notice of References Cited.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A. D'Agostino whose telephone number is (571) 270-1992. The examiner can normally be reached on Monday - Friday, 7:30 a.m. - 5:00 p.m..

8. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dmitry Suhol can be reached on (571) 272-4430. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/567,188
Art Unit: 3714

Page 6

/Paul A. D'Agostino/
Examiner, Art Unit 3714